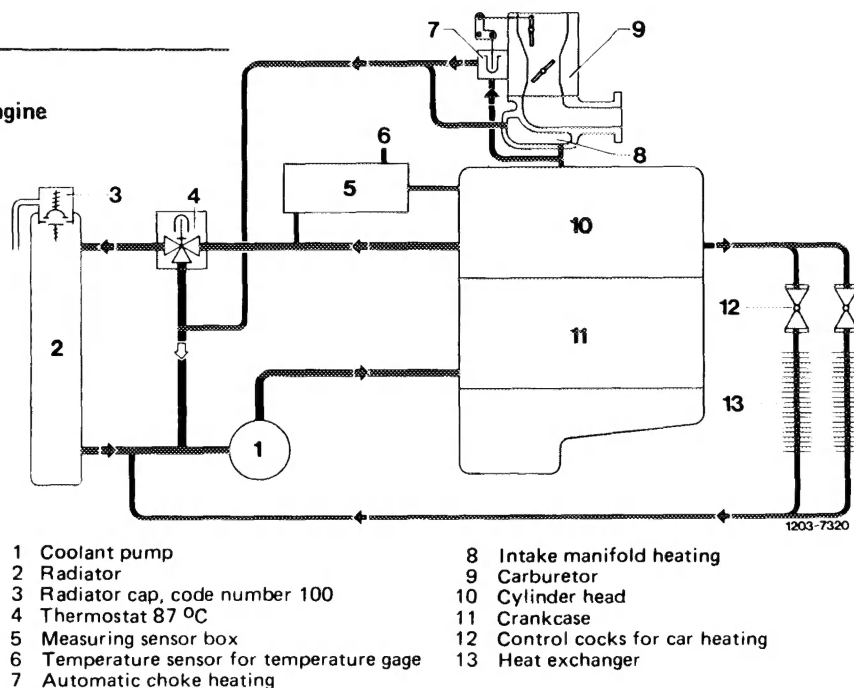
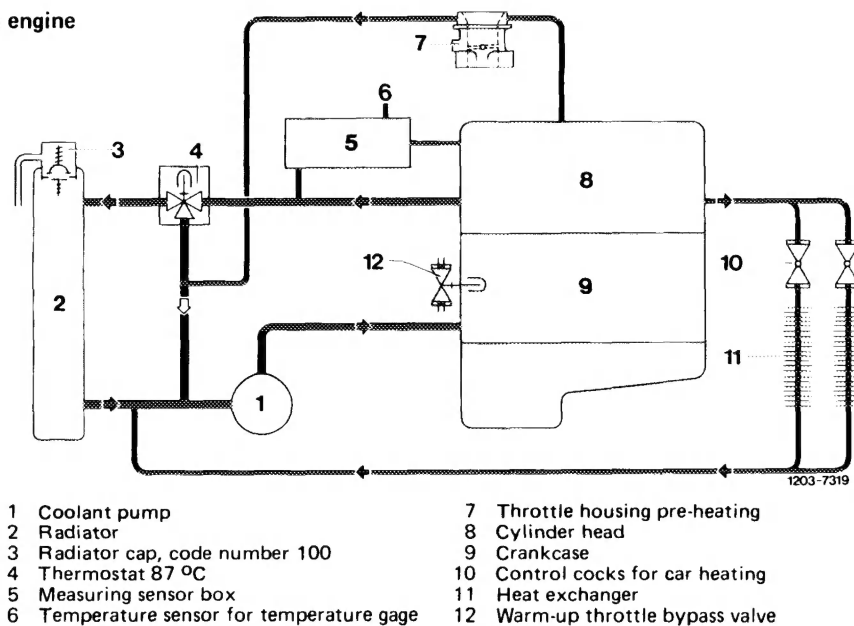


# Coolant circuit

## Coolant circuit for carburetor engine



## Coolant circuit for fuel injection engine



**Note:** The line for pre-heating the throttle housing (7) is omitted on engines with continuous fuel injection (CIS).

## Engine cooling

The spring-loaded radiator cap establishes a gauge pressure of approx. 1 bar in cooling system.

The factory fills the cooling system with an all year coolant, which consists of about 55% water and 45% anti-freeze by volume.

This provides protection against freezing at temperatures down to  $-30^{\circ}\text{C}$  and the additives in the anti-freeze will prevent corrosion in the cooling system. Since the additives are subject to an aging process, the coolant must be replaced every two years.

To provide adequate protection against corrosion, the concentration of anti-freeze must offer protection against freezing of at least  $-20^{\circ}\text{C}$  (30% by volume).

If an anti-freeze is not available and only water is filled, it is essential to add 1% of anti-corrosion oil (10 cc/liter water).

For the model 114 1 % or 10 cc/liter of anti-corrosion oil must be added even when using an anti-freeze to lubricate the heater cocks thoroughly.

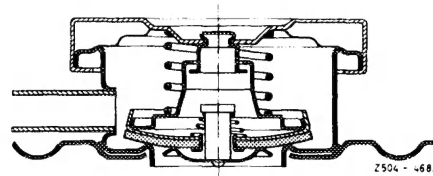
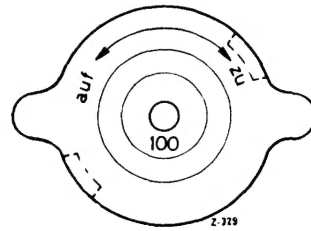
The anti-freeze of the mixture filled at the factory will increase the boiling point, which is about  $118^{\circ}\text{C}$  for water at gauge a pressure of 1 bar, to approximately  $125^{\circ}\text{C}$ .

The red mark on the temperature gauge begins at 122 (since the middle of may 1975, previously  $115^{\circ}\text{C}$ ).

This point deserves special attention, if only water with an anti-corrosion oil is used. Coolant could be thrown out, before the coolant temperature gauge needle reaches the red mark.

For full throttle, mountainous and caravan driving, high speed highway driving followed by traffic jams or when driving in areas with high outside temperatures, the coolant temperature gauge needle could move to the red mark when the anti-freeze protection is at least  $-30^{\circ}\text{C}$  without throwing out coolant or having any engine trouble.

If the engine of a stationary car has to run for a long time, i.e. in traffic jams, it would be advantageous to move the selector lever of models with an automatic transmission to "N". This will reduce the development of heat in the transmission and thus any additional heating of the coolant via the transmission oil cooler.



An appropriately mixed coolant must be added when there is any loss of coolant through a leak in the cooling system or throwing out due to overheating.

The amount missing due to evaporation can be replaced with drinking water.